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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/518,753	03/03/2000	James F. Arnold	SRI1P013X1	6922

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EXAMINER	
DIVECHA, KAMAL B	

ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/518,753	ARNOLD ET AL.	
	Examiner	Art Unit	
	KAMAL B. DIVECHA	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20, 34* is/are pending in the application.

4a) Of the above claim(s) *21-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20, 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Claims 1-6, 9-20 and 34 are pending in this application.

Claims 7, 8 and 21-33 are cancelled.

Applicant's arguments with respect to claims 1-6, 9-20 and 34 have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments are deemed moot in view of the following new grounds of rejection as explained here below, necessitated by Applicant's substantial amendment (i.e., the incorporation of "the object including data and functionality" into the independent claims) to the claims which significantly affected the scope thereof.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-4, 6, 9-20 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lathrop (U. S. Patent No. 5,701,427) in view of Barker et al. (hereinafter Barker, U. S. Patent No. 5,931,916), and further in view of Ma et al. (hereinafter Ma, US 5,920,725).

As per claim 1, Lathrop discloses a method for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system (simply interpreted as client/server architecture), wherein the first computing system is a server and the second computing system is a client (see fig. 1 and col. 1 L43 to col. 2 L33), the method comprising: identifying the packet of data using the first computing system, wherein said second computing system is listening (fig. 2 item #36, 37 and 34; col. 5 L33-49), wherein the packet of

data includes data which represents an object in the client/server object-based computing system (i.e. data or information or item in a message in a client/server architecture), the object been identified as an object which the second computing system has an interest in receiving updates (col. 5 L33-66); attempting to send the packet of data from the first computing system to the second computing system (fig. 2 item #32, 38; fig. 7A and 7B) and determining when the packet is received by the second computing system (fig. 7A item #260-262 and fig. 7B item #263-264).

However Lathrop does not disclose the process wherein the object includes data and functionality and the process of sending an acknowledgement from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgement being arranged to indicate that the packet of data is received by the second computing system.

Barker, from the same field of endeavor, explicitly discloses the process of sending an acknowledgement from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgement being arranged to indicate that the packet of data is received by the second computing system (col. 6 L20-27, L59-66, col. 7 L24-29).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to incorporate the teaching of Barker as stated above with Lathrop, in order employ the process of sending an acknowledgement from the client to the server when it is determined that the packet is received by the client and to indicate that the packet is received by the client.

One of ordinary skilled in the art would have been motivated because by using acknowledgments, retransmission, sequence numbers, etc., reliability of data transfer between data processes on separate nodes would have been achieved (Barker, col. 6 L10-13).

However, Lathrop in view of Barker does not disclose the process wherein the object includes data and functionality (i.e. objects, as understood in the field of object-oriented computing systems and as specified by the applicant's specification "are generally programming units which include data and functionality and are instances of classes").

Ma, from the same field of endeavor, explicitly discloses the process of sending a packet of data from the server to the client, wherein the packet of data includes data which represents an object in the client/server object-oriented computing system and wherein the object includes data and functionality (fig. 1: client/server architecture, fig. 2 item #34 and #42, fig. 6: client/server, col. 2 L1 to col. 3 L56, col. 5 L60 to col. 6 L67, col. 7 L1-56, col. 13 L40 to col. 14 L30).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Lathrop in view of Barker, and further in view of Ma in order to transmit a packet of data which includes an object comprising a data and functionality.

One of ordinary skilled in the art would have been motivated because this would have enabled an application to be updated that comprises plurality of objects (Ma, col. 15 L13-48 and col. 1 L15 to col. 2 L12).

As per claim 2, Lathrop discloses the process of re-attempting to send the packet of data from the first computing system to the second computing system when it is determined that the packet of data is not received by the second computing system (col. 2 L2-20; col. 7 L20-25).

As per claim 3, Lathrop discloses the process wherein re-attempting to send the packet of data does not include attempting to establish communications between the first computing system and the second computing system (col. 15 L35 to col. 16 L16).

As per claim 4, Lathrop discloses the process of determining when the re-attempt to send the packet of data is successful, wherein when it is determined that the re-attempt to send the packet of data is not successful, an attempt is made to establish communications between the first computing system and the second computing system (col. 20 L4 to col. 22 L14 and fig. 6A-7B; col. 19 L57 to col. 20 L31).

As per claim 6, Lathrop discloses the process of placing the packet of data in a queue using the first computing system, and removing the packet of data from the queue using the second computing system (col. 22 L49-63), however Lathrop does not disclose the process wherein the queue is arranged to prioritize the packet of data with respect to any packets of data associated with the queue.

Barker, from the same field of endeavor discloses the system wherein the queue is arranged to prioritize the packet of data with respect to any packets associated with the queue (col. 8 L51-60).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Lathrop in view of Barker in order to prioritize the packet of data associated with the queue.

One of ordinary skilled in the art would have been motivated so that the high priority data are forwarded or transferred first (Barker, col. 8 L51-60).

As per claim 9, Lathrop discloses a method for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client (see fig. 1 and col. 1 L43 to col. 2 L33), the method comprising: attempting to send the packet of data from the first computing system to the second computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system (fig. 2 item #32, 38; fig. 7A and 7B and col. 6 L51 to col. 7 L26), the object been identified as an object which the second computing system has an interest in receiving updates; determining when the packet is received by the second computing system (fig. 7A item #260-262 and fig. 7B item #263-264); and assuming that packet losses have occurred when it is determined that the packet of data is not received by the second computing system (col. 7 L20-41), wherein assuming that packet losses have occurred includes repeating a) and b) for up to predetermined maximum number of times (col. 9 L49-66), however Lathrop does not disclose the process wherein the object includes data and functionality and the process of identifying the packet of data as being successfully sent when it is determined that the packet of data is received by the second (i.e. by sending an acknowledgement message to the sender).

Barker, from the same field of endeavor, explicitly discloses the process of sending an acknowledgement from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgement being arranged to indicate that the packet of data is received by the second computing system (col. 6 L20-27, L59-66, col. 7 L24-29).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Lathrop in view of Barker in order to employ the process of sending an acknowledgement from the client to the server when it is determined that the packet is successfully received by the client.

One of ordinary skilled in the art would have been motivated because of the same reasons as set forth in claim 1.

However, Lathrop in view of Barker does not disclose the process wherein the object includes data and functionality (i.e. objects, as understood in the field of object-oriented computing systems and as specified by the applicant's specification "are generally programming units which include data and functionality and are instances of classes").

Ma, from the same field of endeavor, explicitly discloses the process of sending a packet of data from the server to the client, wherein the packet of data includes data which represents an object in the client/server object-oriented computing system and wherein the object includes data and functionality (fig. 1: client/server architecture, fig. 2 item #34 and #42, fig. 6: client/server, col. 2 L1 to col. 3 L56, col. 5 L60 to col. 6 L67, col. 7 L1-56, col. 13 L40 to col. 14 L30).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Lathrop in view of Barker, and further in view of Ma in order to transmit a packet of data which includes an object comprising a data and functionality.

One of ordinary skilled in the art would have been motivated because of the same reasons as set forth in claim 1.

As per claim 10, Lathrop discloses the process of repeating the process of a) and b) until is determined that the packet of data is successfully sent (col. 12 L2-15).

As per claim 11, Lathrop discloses the process wherein a time differential between each attempt at repeating a) and b) is determined using the statistical information including at least one measurement of an amount of time elapsed for another packet of data to be sent and received (col. 12 L2-41, col. 14 L40-53, col. 20 L54 to col. 21 L19).

As per claim 12, Lathrop discloses the process wherein a) and b) have repeated a predetermined number of times, at least one attempt is made to establish a connection between he first computing system and the second computing system (col. 19 L33 to col. 20 L53).

As per claim 13, Lathrop discloses the process of determining when the at least one attempt to establish the connection between the first computing system and the second computing system is successful, wherein when it is determined that the at least one attempt to establish the connection is successful, a) and b) are repeated (col. 19 L33 to col. 20 L55 and col. 18 L25-30).

As per claim 34, Lathrop discloses a method for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client (see fig. 1), the method comprising: identifying the packet of data using the first computing system, wherein said second computing system is listening (fig. 2 item #36, 37 and 34; col. 5 L33-49), wherein the packet of data includes data which represents an object in the client/server object-based computing system (i.e. data or information), the object been identified as an object which the second computing system has an interest in receiving updates (col. 5 L33-66); attempting to send the packet of data from the first computing system to the second computing system (fig. 2 item

#32, 38; fig. 7A and 7B) and determining when the packet is received by the second computing system (fig. 7A item #260-262 and fig. 7B item #263-264), however Lathrop does not disclose the process of sending an acknowledgement from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgement being arranged to indicate that the packet of data is received by the second computing system and the object being represented in an object list in the first computing system, the object list arranged to include objects that are to be updated, and the object being represented in a filter tree which is arranged to identify objects that the second computing system has an interest in, wherein the object includes data and functionality.

Barker, from the same field of endeavor, explicitly discloses the process of sending an acknowledgement from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgement being arranged to indicate that the packet of data is received by the second computing system (col. 6 L20-27, L59-66, col. 7 L24-29).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to incorporate the teaching of Barker as stated above with Lathrop, in order employ the process of sending an acknowledgement from the client to the server when it is determined that the packet is received by the client and to indicate that the packet is received by the client.

One of ordinary skilled in the art would have been motivated because of the same reasons as set forth in claim 1.

However Barker does not disclose the process wherein the object is represented in an object list in the first computing system, the object list arranged to include objects that are to be updated, and the object also being represented in a filter tree which is arranged to identify objects that the second computing system has an interest in, wherein the object includes data and functionality.

Ma, from the same field of endeavor, discloses the process wherein the objects are represented in an object list in a server, the object list arranged to include objects that are to be updated and represented in a filter tree to identify objects that the client has an interest in, wherein the object include data and functionality (fig. 1: client/server architecture, fig. 2 item #34 and #42, fig. 6: client/server, col. 4 L42-49, col. 2 L1 to col. 3 L56, col. 5 L60 to col. 6 L67, col. 7 L1-56, col. 9 L45 to col. 10 L45, col. 13 L40 to col. 14 L30).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Lathrop in view of Barker, and further in view of Ma, in order to employ an object list in a server and further objects being represented in a filter tree that are to be updated and wherein the client has an interest in, since Ma teaches the process of forming a filter tree and an object list at the server, which the client has an interest in.

One of ordinary skilled in the art would have been motivated because of the same reasons as set forth in claim 1.

As per claims 14-20, they do not teach or further define over the limitations in claims 1-4, 6, 9-13 and 34. Therefore claims 14-20 are rejected for the same reasons as set forth in claims 1-4, 6, 9-13 and 34.

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lathrop (U. S. Patent No. 5,701,427) in view of Barker et al. (hereinafter Barker, U. S. Patent No. 5,931,916), and in view of Ma et al. (hereinafter Ma, US 5,920,725), and further in view of Whalen et al. (hereinafter Whalen, U. S. Patent No. 5,948,066).

As per claim 5, Lathrop, Barker and Ma discloses the process of establishing a connection between the first computing system and the second computing system before identifying the packet of data (Lathrop, fig. 6A item #200-202 and fig. 1), however Lathrop, Barker and Ma does not disclose the connection being a wireless connection.

Whalen, from the same field of endeavor discloses a system and a method for delivery of information over the narrow-band communications link i.e. a wireless link (see abstract, fig. 1, fig. 3; col. 2 L16-40).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to incorporate the teaching of Whalen as stated above with Lathrop, Barker and Ma in order to employ a mechanism for delivering data over a wireless connection.

One of ordinary skilled in the art would have been motivated so that the requests and responses would have been exchanged between the mobile client and the fixed server over a narrow-band communications link (Whalen, col. 3 L19-26).

Additional References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Carr, U. S. Patent No. 4,718,002.

b. Doshi et al., U. S. Patent No. 5,550,848.

c. Neches, U. S. Patent No. 5,276,899.

d. Jain et al., U. S. Patent No. 5,377,327.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMAL B. DIVECHA whose telephone number is 571-272-5863. The examiner can normally be reached on Increased Flex Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kamal Divecha
At Unit 2151
November 2, 2006.

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